



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/534,394

11/16/2005

Bartosz Krzysztof Wasilewski

TTP104254

2861

27896 7590 11/10/2009
EDELL, SHAPIRO & FINNAN, LLC
1901 RESEARCH BOULEVARD
SUITE 400
ROCKVILLE, MD 20850

EXAMINER

DOAN, PHUOC HUU

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

11/10/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

epatent@usiplaw.com

Office Action Summary

Application No.

10/534,394

Applicant(s)

WASILEWSKI, BARTOSZ
KRZYSZTOF

Examiner

PHUOC DOAN

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 12-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **12-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Antia in view of **Richards (US Pub No: 2007/0286272)**.

As to claim 12, 16, Antia discloses a method of conditioning signal values being conveyed to a decoder “**Fig. 4 with description in DECODER function**” in a wireless-communications network receiver (col. 5, lines 51-61), the method comprising step of: scaling the signal values (col. 4, lines 55-67 “**three scale factor has selected to optimize the fading channel performance of the disclosed three bit soft decision scheme**”), monitoring the probability distribution of the amplitudes of the scaled signal values adjusting the scaling factor according

to the probability distribution gained through step (b) (col. 5, lines 10-45

“monitoring step of scaling should be adjusted when the scale factor is decrease or increase based on the average signal magnitude in associated with available range of soft decision values”). However, Antia does not disclose the outputted by a rake receiver by probability distribution of the amplitudes of the signal.

In the same field of endeavor, Richards discloses the outputted by a rake receiver by probability distribution of the amplitudes of the signal (par [0133-0135]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the outputted by a rake receiver by a scaling factor of Richards to the system of Antia in order to **improve** the output of a rake receiver in term of detect any par of multi-path impulse radio signal.

As to claim 13, Antia further discloses a method according to claim 12, wherein the monitoring step comprises calculating a complementary cumulative probability density function for a signal value magnitude (see detailed in col. 5, lines 1-45 **“it is defined by a series of discrete ranges of bit signal value for scale factor based on the probability of density function of the average signal magnitude to vary the scaling of the quantization function in order to has the actual**

range of bit signal values within each burst which has been calculated by step of probability density function for a signal”) .

As to claim 14, 18, Antia further discloses a method according to claim 12, wherein the monitoring step comprises determining the fraction of a group of signal values that exceed a certain magnitude (col. 5, lines 35-40 **“if the average signal magnitude is high $s > 0.7$ ”**).

As to claim 15, 19, Antia further discloses a method according to claim 12, wherein the decoder is a 3G telecommunications bit-rate signal decoder (col. 3, lines 55-65, col. 6, lines 35-45 **“the soft decision bits are decoded by the decoder 64, and the bits associated with a given burst correspond to information received from a particular mobile device”**).

As to claim 17, Antia further discloses wherein the monitoring means is adapted to calculate a complimentary cumulative probability density function for a signal value magnitude (see detailed in col. 5, lines 1-45 **“it is defined by a series of discrete ranges of bit signal value for scale factor based on the probability of density function of the average signal magnitude to vary the scaling of the**

quantization function in order to has the actual range of bit signal values within each burst which has been calculated by step of probability density function for a signal”).

Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/
Examiner, Art Unit 2617